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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,384

01/03/2006

Fukashi Urakami

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EXAMINER

STABLEY, MICHAEL R

ART UNIT

PAPER NUMBER

3611

MAIL DATE

DELIVERY MODE

03/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,384	Applicant(s) URAKAMI, FUKASHI	
	Examiner Michael Stabley	Art Unit 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/17/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," "The present invention," etc.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claims 1-4, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3611

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Urakami (U.S. Patent 4,926,957).

In re claim 1, Urakami discloses a moving carrier that sticks to the surface of an object by use of a sticking means, such as negative pressure (column 6, lines 53-55), comprising: a moving means consisting of at least two sets of driving wheels (158 and 164) or one set of caterpillar on each of its right and left sides relative to its traveling direction (see Figure 2); such moving means being so constructed as to serve as a driving and moving means by way of being connected to a driving source; one contact area (50), randomly selected from among a number of contact areas between the driving and moving means and the traveling surface on one side randomly selected from the right and the left sides of the moving carrier relative to its traveling direction, being situated in the vicinity of the center of certain sticking force acting on the moving carrier so that the contact pressure at the area where the randomly selected contact area and the traveling surface are in contact with each other is greater than the contact pressures of the area where the other contact areas and the traveling surface are in contact with each other in order to achieve the reduction of the friction resistance at the other contact areas, and not the randomly selected contact area, and the other contact areas being situated away from the center of the sticking force; and the other contact areas being caused to slide sideways when the moving carrier gyrates with the randomly selected contact area as the pivot as shown in Figure 2.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Urakami.

In re claim 2, Urakami discloses the moving carrier that sticks to the surface of an object by use of a sticking means, such as negative pressure, described in Claim 1 above that comprises a means whereby the rotation of the driving and moving means located at the randomly selected contact area is stopped. Urakami does not specifically disclose that the rotation of all the other driving and moving means installed at the other side are started, with respect to the moving means that causes the moving carrier to make transverse or broadwise movements in the direction transecting its traveling direction. It would have been obvious to one having ordinary skill in the art at the time the invention was made to turn by stopping one side caterpillar and starting the other side since it was known in the art that track vehicles can turn by either stopping one side track and starting the other, or by moving the tracks simultaneously in opposite directions. The Examiner also notes that since the right and left side wheels of Urakami are controlled by separate motors (156) it would be easily configurable to turn in the same manner as claimed in claim 2.

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9. Claims 3 and 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Urakami as applied to claims 1 and 2 above, and further in view of Moriyama Yoshihiro (JP-2804180).

In re claims 3 and 4, Urakami discloses the moving carrier that sticks to the surface of an object by use of a sticking means, such as negative pressure, described in Claims 1 and 2 above, but fails to disclose that it additionally comprises a fixed frame and an oscillating frame each of which is equipped with a driving means comprising two sets of driving wheels or one set of caterpillar. Moriyama Yoshihiro, however, does disclose a moving carrier that additionally comprises a fixed frame (2a) and an oscillating frame (2b) each of which is equipped with a driving means comprising two sets of driving wheels or one set of caterpillar. Therefore it would have been obvious to one of ordinary skill in the art to modify the invention of Urakami to have one fixed frame and one oscillating frame to provide a moving carrier which can move smoothly over a curved surface as specifically disclosed by Moriyama Yoshihiro.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ingro (U.S. Patent 3,810,515), Shino (U.S. Patents 3,926,277 and 3,955,642), and Urakami (U.S. Patents 4,809,383 and 4,095, 378 and 5,007,210 and 5,536,199) disclose moving carriers with sticking means such as negative pressure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Stabley whose telephone number is (571)270-3249. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D. Morris can be reached on 571-272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Stabley
Examiner
Art Unit 3611

/Michael Stabley/
Examiner, Art Unit 3611

**/Lesley D. Morris/
Supervisory Patent Examiner, Art Unit 3611**